

Institutional Program Review

**BS in Respiratory Care
AS in Respiratory Care**

**College of Arts and Sciences
Dakota State University**

**Program Reaccreditation Site Visit
November 17-18, 2008**

Reviewer:

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Part I: Executive Summary of Findings

The Respiratory Care Program at Dakota State University is very unique in many ways:

- 1) It is currently the only program in the state. There is a satellite campus in Rapid City.
- 2) The program is housed in a respiratory care department in one of the major hospitals in Sioux Falls.
- 3) There are always respiratory therapists from the department to help students either clinically or didactically.
- 4) The students are constantly exposed to a professional environment.
- 5) Having the program in a hospital setting increases the student's exposure to a wide variety of equipment.

Part 2: Schedule of On-site Visit

The on-site visit from CoARC was November 17-18, 2008 (see Attachment A).

Part 3: Academic Program Evaluation

- **Analysis of Trends in the Discipline:**

The increasing need for respiratory care practitioners is definitely an attraction for many students. The U.S. Department of Labor Statistics says in general, employment will increase by 15%, the need for RTs will grow by up to 26%. With that demand also comes an increase in salaries. According to the 2005 Human Resource study from the AARC, the projected average starting salary is \$41,538.

There has been quite a bit of discussion concerning the move to an entry-level Bachelor degree. It would be very hard to do, with the majority of the AAS programs at a community college level.

The program is definitely aware of the trends in respiratory care and are responding to the challenges now and in the future. The faculty have been recruiting to make the community more aware of the respiratory care profession. The program has developed an option for senior students by having them specialize in an area of interest so that the student may sit for that credential after their registry exam.

- **Analysis of Academic Program and Curriculum**

The mission statements for the respiratory care program are consistent with the goals of Dakota State University.

The student has two programs from which they can choose; the AS and the BS program. This provides the student with the opportunity to obtain an Associate Degree and work for a

year or two and then obtain a Bachelor Degree. The student also has the flexibility of taking classes part-time towards the Bachelor's Degree while working.

Because the student completes two semesters at Dakota State University before beginning the respiratory care program, the program's attrition rate is better.

The student obtains a wide variety of exposure to equipment and to the types of patients that they care for by having the three largest hospitals in the state as clinical affiliates. The students also benefit highly by the support and instruction of the medical directors.

The student also gets the opportunity to observe in various types of hospital settings throughout the state.

The courses are sequenced so that basic material is taught first and then the next course is built on the basic material, and so on until the student reaches the decision-making and analytical level. The integration of the material learned is taught in the classroom then applied in the laboratory for practice and then finally in the clinical area. The students are evaluated during each phase of learning.

Arrangements are made for students to take some general education classes on-line so they do not have to commute to campus.

There is a wide variety of teaching strategies used in the program to address the different learning styles of the students. Class interactional discussion in lecture classes makes the class more exciting and places the responsibility to learn on the student. The use of small groups in the laboratory setting gives the students more opportunity to have hands-on experience with the procedure or equipment being taught. The fact that the laboratory is open to the students anytime is outstanding, plus if they need a piece of equipment, they can just borrow from the hospital department. There is a tremendous amount of interaction, evaluation and feedback between the student and the instructor during the program. When the student gets to the clinical rotation, one can tell that the integration of didactic, laboratory and clinical areas has made a difference. The hospital staff is immediately available for individual feedback and advice.

- **Analysis of Program Enrollment and Student Placement**

By having the student complete the general education and science courses prior to acceptance into the program, the program director is assured that the student will do well in the respiratory care program. This way the student has already developed their study habits, written and verbal communication skills and mathematical computing skills.

The program director has recorded the number of students vs. attrition for both campuses. The reason for attrition has, for the most part, been non-academic, over which you sometimes have no control, or cannot assist with the situation. The number of students obtaining the AS

Degree has been steady since 2004, with an increase both in enrollment and graduation seen the last 2-years. This has also been a national trend with respiratory care programs.

The program has a 100% placement rate, with the graduates remaining, for the most part, in the Sioux Falls area. With the shortage of respiratory care practitioners, the nation-wide placement rate is nearly 100%.

- **Analysis of Faculty Credentials**

The faculty as a whole has many years of experience in respiratory care as well as teaching experience. They all appear to be very dedicated to the Program and to the University. I noticed that many of the faculty graduated from this program. There is so much to be said of a graduate that returns to his/her school to teach.

This program has a higher number of FTE's for the number of students than other programs I have seen. But I believe it is due, in part, to the satellite campus in Rapid City. The faculty are involved in activities other than teaching, such as grant activity, research, community involvement and student organizations. The numerous presentations to the public to increase awareness of the field takes a great deal of extra time, especially since so many of the events are held in the evening.

- **Analysis of Academic and Financial Support**

The University provides tablet computers for both students and faculty. By doing so, the students and faculty are all using the same software, and easier communication is assured.

The libraries available are outstanding. Materials are placed in the respiratory care department, the hospital library, and the University library. Students have access to any material at any time.

Support staff appears to be adequate through the senior secretaries and work-study students, in the absence of senior secretaries.

The program has a strong working relationship with the support offices at the University. The financial support available to the program has nearly doubled over the past 2-years, along with the increase in enrollment.

- **Analysis of Facilities and Equipment**

There are classrooms and laboratory space available at all three (3) clinical affiliates (2 in Sioux Falls and 1 in Rapid City) along with faculty offices. With the program being in the hospital, there is always equipment available to the student and it is always state-of-the-art technology.

If there are too many students for one laboratory area, the program will split the labs and have half of the students go to one hospital, and the other half to the other hospital. The students then have enough room to do their laboratory exercises.

Classrooms could be larger in all these affiliates, but with the current number of students, it is adequate in the two hospitals in Sioux Falls. After talking with both students and faculty, it appears the facilities in Rapid City are inadequate and not dedicated to the program. A new classroom/laboratory space is being planned and will move forward when financial resources are secured. Construction needs to move forward for the program to grow at the satellite campus.

The hospitals truly support this program in providing space and equipment for the program. The program does not have to buy any equipment; they can borrow from the departments.

- **Analysis of Major-Field Assessment**

The goal statement reflects three (3) domains of learning: cognitive, psychomotor and affective. The specific objectives under the goal are based on the thresholds required by CoARC for accreditation using a 3-year average. The current annual report submitted to CoARC shows that all of the thresholds are met for the main campus. The only threshold not met at the satellite campus was that of attrition, which was 35.7%, the threshold being less than 30%. Again, this is a new program with a low number of graduates and some of the attrition was due to non-academic reasons.

- **Analysis of Strategic Planning**

The strategic plan for the University is very comprehensive and all goals are aimed at providing the student with not only an excellent education, but also an exceptional experience while attending the University. This plan will also focus on attracting highly qualified students, and offering them various methods of delivering the courses, whether it be on-line or at some local location. The outcomes of this plan will certainly increase awareness of the community and give the University the recognition of continuing to be an excellent institution of higher learning.

The respiratory care program can follow this plan on a smaller scale by attracting and retaining students. The program already has on-line classes and has set up a satellite campus.

- **Overall Evaluation of Strengths and Limitations**

There are many strengths to this program including:

- 1) The faculty is very experienced and dedicated to the program and to the success of their graduates,

- 2) Outstanding clinical affiliates which supports the program with classroom/laboratory space, office space, state-of-the-art equipment and supplies,
- 3) Medical Directors are very involved and committed to the success of the program,
- 4) The Administration of the University strongly supports this program,
- 5) The faculty and program being housed in the clinical affiliates provides a positive environment for students and therapists,
- 6) By having all the general education courses completed prior to respiratory care courses, the program has a higher retention rate

The limitations of the program are:

- 1) The annual review of Program Goals and Standards by the Advisory Committee needs to be completed and documented in the minutes,
- 2) The construction of the classroom/laboratory space at the satellite campus needs to move forward.

- **Part 4: Recommendations for Change**
General Comments

The Respiratory Care Program, being housed in several hospitals, offers a tremendous advantage to the student and the program:

- 1) the students learn using state-of-the-art equipment,
- 2) the student is constantly exposed to a professional environment,
- 3) the student and faculty have many opportunities to become involved with research activities,
- 4) the student has the opportunity to gain knowledge not only from the faculty but also from the therapists,

It is a win-win situation to have a program in the hospital setting. It not only helps the program, but the hospital benefits from students when they begin working at the hospital.

The program and the University really works with the student with their enrollment and completion of the general education courses with the many different schools they can attend, and continues to work with the student throughout the respiratory care program.

- **Specific Recommendations, Including Accreditation**

- 1) Classroom/Laboratory facilities at Rapid City need to be improved,
- 2) Continue to provide funding for professional development for faculty to attend the National Conferences.

- 3) Update and review, on an annual basis, the agreements with the clinical affiliates
- 4) Physician input, direct and indirect, needs to be documented in clinical records.
- 5) Continue to monitor the attrition at the satellite campus. Perhaps tutoring and a mentorship program may be beneficial.
- 6) Continue to assess the need for strictly a Bachelor program, but not until the entry-level is at the Bachelor level.
- 7) Continue to work closely with the clinical affiliates to maintain the programs outstanding relationship.

- **Specific Comments/Recommendations Relative to Issues Identified by the University**

- The student enrollment and completion rate has increased over the past 2-years. This is a national trend for respiratory programs, but all the recruitment activities made the community more aware of the field and certainly assisted with the enrollment numbers.
- The anatomy and physiology courses completed prior to admittance to the program helps to maintain the attrition rate at a minimum number. The students not only have the basic knowledge of anatomy and physiology, but they have developed their study skills for the difficult courses in the program.
- The integration of technology is important in any program since everyone is exposed to technology on a daily basis. By all students having a Tablet computer, the program has a common interface by which to disseminate lecture materials and evaluations. The use of clickers in the classroom to assess student learning and faculty effectiveness will enhance the program.
- The number of faculty is adequate since there is a satellite campus across the state. The faculty, as a whole, has vast and diverse experiences in the field to bring to the classroom setting.
- There is an outstanding student support in the University. The student can now register at Sioux Falls and does not have to travel to Madison. The various student services has a great working relationship with the program director. The Respiratory Care Club for students in the general education courses helps the student see what opportunities are available as a Respiratory Care Practitioner. They also help in recruiting activities.
- Advising is done by the University and the program faculty. The program faculty usually has more opportunities to advise the students in the program. The Respiratory Care Club also helps students decide about the field and the junior and senior students can also advise the student in the general education courses. Develop remedial tutoring for those students who were unsuccessful on the initial exit exam.

ATTACHMENT A

Respiratory Care Tentative Site Visit Agenda

Dakota State University

Sunday, Nov. 16, 2008

Arrival of site visitors (Kelly at 2:13, Diane at 5:05)

Monday, Nov. 17, 2008

8:00 a.m. Arrive at Sanford USD Medical Center
8:15 a.m. Meet with faculty (classroom)
9:00 a.m. Meet with DSU Administration (Drs. Knowlton, Wittmayer, & Forbes-Boyte)
9:30 a.m. Interview graduates (+ Rapid City by conf call)
10:00 a.m. Interview current clinical students (+ Rapid City by conf call)
10:30 a.m. Meet with Medical Directors (Dr. Elshami live, Dr. Rosario by conf call)
11:00 a.m. Travel to Avera McKennan Hospital
11:30 a.m. Meet with Advisory Committee (classroom, + conf call)
12:15 p.m. Luncheon (President's Room)
1:30 p.m. Meet with clinical affiliate Department Directors (classroom)
2:00 p.m. Meet with Clinical Instructors
2:30 p.m. Review program documents
5:00 p.m. Return to hotel

Tuesday, Nov. 18, 2008 (Diane leaves at 1:10, Kelly leaves at 4:34)

8:00 a.m. Arrive at Sanford USD Med Ctr; clarify concerns with faculty
8:30 a.m. Reviewers meet in executive session
9:30 a.m. Meet with faculty in consultation conference to review site visit report
10:00 a.m. Summation Conference